REMARKS

Upon entry of this amendment, claims 1-13 are pending. By the present amendment, claim 1 has been amended and new claims 6-13, directed to a method, have been added.

The rejection of claims 1-5 under 35 U.S.C. §102(e) based on Molloy (U.S. Patent No. 5,787,234) is respectfully traversed. Without acquiescing in the rejection, claim 1 has been amended for clarity. Accordingly, the rejection will be discussed with respect to the amended claims.

Molloy is directed to an adaptive learning system in which knowledge is represented in the form of discrete concepts that are associated with one another. Each such association of the concepts is called a case. The degree of association of the concepts in the various cases can be specified using a mathematical score. Thus, according to Molloy, if one concept is specified to the system, the system will identify associated concepts. The purported adaptive learning system of Molloy is initialized by loading into the system cases which typically were derived from previous experience. the cases are stored by the processor in a case table in long-term memory. Each of the concepts identified in the cases is stored in the concept table in the long-term memory. From these cases the processor can then generate, in real time, ordered lists of concepts that are most closely associated with free text or with one or more concepts that are provided as inputs to the system.

According to Molloy, a query is formed using a window and entering details into a selected field. This causes the system to attempt to match the input to information

stored in the long-term memory (*i.e.*, the knowledge cube), and return a prioritized list of results (referred to by Molloy as "concepts") to the user. From the results list, the user can select the most appropriate option, and proceed to further modify their query by entering additional details. In the arrangement of Molloy, the knowledge cube is the database, since it is the information returned from searching the "knowledge cube" which the user desires to access by formulating search queries.

The claimed invention, on the other hand, is directed to a system and method for alleviating problems relating to database access. In particular, in large and complex databases, such as, for example, marketing databases, the domain is typically characterized by very large databases containing many gigabytes of customer related information. Many different types of users may have the need to query such a large and complex database. Different users may have different abilities or familiarity with database access and the formulation of efficient queries. Exemplary embodiments of the claimed invention provide a database access tool that makes database access easier and more efficient for users having different abilities by storing previous queries in a data store that is separate from the database, and reusing these previous queries at the appropriate times. Separating the query data store from the database provides numerous efficiencies heretofore unrealized by the prior art. For example, the provision of a separate query store allows both a consistent searching approach using previously formulated queries (and sometimes associated results) that are stored separately from the database, and also provides savings in processing overheads associated with repeat searching of the database that are no longer required when the query store does not become part of the database.

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The Office Action alleges that Molloy anticipates the claimed invention. However, this is simply not the case. For example, the claimed invention is distinguished from Molloy in that the claimed invention includes the feature of a query store that is *separate* from the database. In Molloy, the interface window involves only the *temporary* storage of the *current* query, thereby allowing the user to modify the query in a cyclical manner to narrow down the results obtained from the database (or "knowledge cube"). Upon completion of the current query, Molloy does not transfer the selected query to a separate query store, as claimed. Instead, according to Molloy, the query may be added to the knowledge cube itself, effectively making the query a part of the database, thereby expanding the knowledge base and consequently influencing the results of subsequent queries. The arrangement of Molloy is one in which a knowledge base consisting of problem/solution cases can be searched by a user to identify similar events and thereby retrieve the associated solutions. This is distinguished from the claimed invention in which it is the *separate* query store that is searched to identify similar previous queries, a feature that is *independent* from subsequently using the selected query to search the database.

In addition, it is alleged in the Office Action, that Molloy anticipates (at Col. 4, lines 10-43) the claimed search tool for searching the query store against a constructed query. However, the claimed invention specifically recites that the query store is separate from the database. As set forth above, separation of the query store from the database provides numerous advantages and differences between prior art systems and the claimed invention. The steps of Molloy simply equate to searching a database to find appropriately similar results. This is completely distinct from the claimed invention in

which a search of the query store (that is *separate* from the database) is carried out prior to the searching of the database (of course, a query obtained from the separate query store may be used to subsequently query the database).

The query submission of Molloy simply involves directly accessing the database contents. This is not the same as comparing the query with an alternative one obtained from a separate query store prior to then submitting one of the queries to a database. Thus, there is no teaching or suggestion in Molloy of the query submission means of the claimed invention.

It is axiomatic that in order for a reference to anticipate a claim, the reference must disclose, teach or suggest each and every feature of that claim. As noted above, Molloy fails to disclose, teach or suggest each and every feature of the claimed invention. In particular, Molloy fails to disclose or suggest a query store that is separate from the database, and the consequences that flow from such an arrangement. Molloy further fails to appreciated the advantages achieved by the claimed invention. Accordingly, Molloy fails to anticipate the claimed invention. Therefore, reconsideration and withdrawal of the rejection are respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that the entire application is in condition for allowance. Favorable reconsideration of the application and prompt allowance of the claims are earnestly solicited.

Should the Examiner deem that further issues require resolution prior to

allowance, the Examiner is invited to contact the undersigned attorney of record at the

telephone number set forth below.

Respectfully submitted,

NIXON & VANDERHYE P.C.

Updeep S. Gill
Registration No. 37,334

USG:led

1100 North Glebe Road
8th Floor
Arlington, Virginia 22201
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

MARKED-UP VERSION OF AMENDED AND NEWLY ADDED CLAIMS

1.   (*Amended*)   A database access tool comprising:

[i)]   means for constructing database queries;

[ii)]   a query store for storing database queries, said query store being separate from said database;

[iii)]   a search tool for searching the query store against a constructed query; and

[iv)]   query submission means for selecting between a constructed query and a query located against it by the search tool, and for submitting the selected query to a database.

6.   (*New*) A method of accessing a database, the method comprising:

constructing a database query;

searching a query store containing database queries against the constructed query, said query store being separate from said database;

selecting between the constructed query and a query located against it during the searching step; and

submitting the selected query to the database.

7.   (*New*) A method according to claim 6, wherein the step of constructing a database query comprises a user loading data to at least on data field in a database query.

8.   (*New*) A method according to claim 7, wherein the step of searching comprises calculating a similarity factor between data fields in database queries stored in the query store and at least one data field in the newly constructed database query.

9.   (*New*) A method according to claim 7, wherein the query store is constructed by case based reasoning.

10.   (*New*) A method according to claim 9, wherein the step of constructing a query comprises creating a query as a case using case based reasoning, and the step of searching comprises using case based reasoning.

11.   (*New*) A method according to claim 6, further comprising:

collecting management information data for a query submitted to the database;

structuring the management information in the same manner as the respective query; and

loading the structured management information to a searchable management information data store.

12.   (*New*) A method according to claim 6, further comprising:

storing results associated with a submitted query in a data store.

13.   (*New*) A method according to claim 12, further comprising:

returning results for the submitted query from results previously stored in said data store when the located query is identical or similar to the constructed query, said previously stored results being associated with the located query.